

UNMANNED AIRCRAFT SYSTEMS (UAS)

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439 UNMANNED AIRCRAFT SYSTEMS (UAS)

439.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of small Unmanned Aircraft Systems (sUAS). The use of small Unmanned Aircraft Systems, also known as drones, can be invaluable in certain situations. Concerns about privacy can overshadow the benefits UAS technology brings to public safety. The Columbia Police Department takes those concerns seriously and will only use this technology appropriately and in compliance with the United States Constitution, FAA regulations, State Law and City Ordinance.

439.2 POLICY

It is the policy of the Columbia Police Department to utilize a small Unmanned Aircraft System (sUAS) for the focused purpose of public safety and law enforcement. Deployment and operation of the sUAS will be conducted according to FAA regulations and established best practices to minimize risk to persons, property, and aircraft while safeguarding constitutional protections and privacy interests of all persons.

439.3 DEFINITIONS

- A. **Sensor Operator (SO):** A person who is responsible for operating the camera systems attached to the sUA but does not have flight control over the sUA. The SO will utilize a separate control station dedicated to in-flight camera functions.
- B. **Control Station (CS):** An interface used by the RPIC to control the flight path of the UA.
- C. **Digital Multimedia Evidence (DME):** Digital recording of images, sounds, and associated data that includes but is not limited to telemetry information and captured images.
- D. **FAA 14 CFR Part 107:** The federal regulations set forth by The Federal Aviation Administration (FAA) regarding sUAS operations in the National Air Space (NAS).
- E. **Remote Pilot in Command (RPIC):** A person who holds a remote pilot certificate with a sUAS rating and has authority over and responsibility for the operation and safety of the sUAS operation conducted under Part 107.
- F. **Small Unmanned Aircraft (sUA):** An aircraft weighing less than 55 pounds and can be flown without the possibility of direct human intervention from within or on the aircraft. Also called a Remotely Piloted Aircraft (RPA), Remotely Operated Vehicle (ROV), Unmanned Aerial Vehicle (UAV) or Drone.
- G. **Small Unmanned Aircraft System (sUAS):** A small Unmanned Aircraft including its associated elements that are required for the safe and efficient operation of the sUA in the National Air Space. The system includes the necessary equipment such as the corresponding Control Station, network, and personnel to pilot and control sUA.
- H. **Visual Observer (VO):** A person acting as a flight crew member who assists the sUA RPIC to see and avoid other air traffic or objects aloft or on the ground.

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439.4 ADMINISTRATION

439.4.1 AUTHORITY

The sUAS program will operate within applicable laws and regulations. The Department will obtain all necessary registrations, authorizations, permits, or certificates required by the Federal Aviation Administration (FAA) for sUAS equipment and operation. These authorizations, permits, and certificates will be maintained and kept current.

All department sUAS remote pilots in command (RPIC) will obtain and keep current any required permit, certificate, authorization and waiver to operate a sUAS in a capacity beyond that of a recreational hobbyist. Such required permits, certificates, authorizations and waivers include but are not limited to a remote pilot certificate with a rating of small unmanned aircraft system and waiver to daylight operations.

439.4.2 AUTHORIZED USE

The primary use for the sUAS is to provide an aerial perspective during public safety emergencies, law enforcement purposes and exigent circumstances. All deployments of a sUA require the authorization of an on-duty supervisor and notification to the sUAS Commander or designee(s).

Potential uses include, but are not limited to:

- A. Situational Awareness: To assist law enforcement decision makers in understanding the nature, scale, and scope of an incident and for planning and coordinating an effective response (e.g. bomb threat);
- B. Search and Rescue: To assist missing person investigations, such as AMBER Alerts, Silver Alerts, and other similar circumstances;
- C. Scene Documentation: To document crime scenes, accident scenes, or other major incident scenes;
- D. Visual Perspective: To provide real-time aerial perspective to assist in providing direction for crowd control, traffic incident management, special circumstances, and temporary perimeter security (e.g. large crash on I-70 during rush hour); and
- E. Tactical Deployment: To support the tactical deployment of officers and equipment in emergency situations to provide real-time information to enhance response and aid in both civilian and officer safety.

Requests for assistance of a sUAS from outside agencies shall be directed to an on-duty Commander. The decision to authorize assistance should be based upon the availability of manpower, probable duration of the mission and other relevant factors. If the request is granted, the RPIC shall be guided by Columbia Police Department policy and procedures. FAA rules, regulations, restrictions and limitations shall apply regardless of jurisdiction.

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439.4.3 AUTHORIZED OPERATORS

A Department sUAS may only be operated by department personnel who have been specially selected as a department remote pilot. The selected personnel may only operate as a RPIC after having received the required training and while possessing the required permits, certificates, authorizations and waivers.

439.5 OPERATIONS

439.5.1 PRE-DEPLOYMENT

Prior to deployment of a sUA for any mission, the Remote Pilot in Command (RPIC) will complete the following:

- A. Obtain proper authorization for operations other than training;
- B. Perform proper notifications;
- C. Perform a pre-flight inspections to include location, environment and the sUAS according to the established checklist. The checklist shall include but is not limited to:
 - 1. Verification of airspace, weather and area hazards;
 - 2. Establish a base of operations and alternate landing area(s);
 - 3. Assemble sUA with selected components/accessories.
- D. Visually and physically inspect the sUAS including all attached components/accessories and CS; and
- E. Brief the involved crew members.

439.5.2 FLIGHT OPERATIONS

The Remote Pilot in Command (RPIC) will ensure the following during flight operations:

- A. The flight is in compliance with all applicable FAA rules and regulations under Part 107;
- B. The flight is in compliance with all Federal, State and local laws; and
- C. The flight is conducted safely by continually assessing the operating environment to include:
 - 1. Weather conditions;
 - 2. Current airspace of the sUA;
 - 3. Location of all aircraft in the area;
 - 4. Location of persons and property on the ground; and
 - 5. Any other hazards.

As a licensed FAA remote pilot, the RPIC owns the responsibility for the deployment and continued operation of the sUA. Should the RPIC's decision differ from an order given by a supervisor, the RPIC is to:

- A. Immediately address any in-flight emergency;
- B. Safely land the sUA if it is in the air;
- C. Inform the supervisor of the concerns or changes that have occurred; and

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- D. Follow the course of action newly determined by the supervisor.

The RPIC shall track and record the flight pattern and location covered by the sUA during non-mapped missions. The RPIC is responsible for documenting the use of a sUAS in the Logbook, and supplement report if applicable. Any DME captured shall be entered into evidence by the RPIC unless a SO was utilized who shall then have the responsibility of submitting the evidence.

439.5.3 PRIVACY

The crew will ensure the operations of the sUAS will cause no greater intrusion on citizens' privacy interests than is necessary to carry out the mission and in accordance with the law including obtaining required consent or search warrant. The crew will:

- A. Make a reasonable effort when the sUAS is being flown to minimize inadvertent recording of uninvolved persons;
- B. Maintain video and still images in strict compliance with department policies and the Missouri Sunshine law;
- C. Not conduct random surveillance activities with the sUAS. Only directed activity with a specific lawful mission will be flown.

The RPIC and/or Sensor Operator (SO) are responsible for any viewing and/or recordings by equipment on the sUAS and will operate the sUA keeping in mind the duty to protect citizens' right to privacy pursuant to the US Constitution and federal, State and local laws.

439.5.4 POST DEPLOYMENT

Upon completion of the sUAS mission, the Remote Pilot in Command (RPIC) will complete the following:

- A. Perform a post-flight inspection of the sUAS according to the current checklist. The checklist includes but is not limited to:
 - 1. Visually and physically inspect the sUAS including all attached components/accessories and CS;
 - 2. Disassemble the attached components/accessories;
 - 3. Properly pack the sUAS and components/accessories in its corresponding case(s).
- B. Debrief the involved crew members;
- C. Complete a logbook entry; and
- D. Complete all required reports and evidence submissions.

Upon completion of the sUAS mission, the crew will complete all required supplement reports and related evidence submissions.

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439.5.5 sUA LOGBOOK

All flights of a sUA, including missions and training, shall be properly documented in the current Logbook. The Logbook shall include but not be limited to:

- A. Date and Time;
- B. RPIC;
- C. sUA name;
- D. Location;
- E. Description of the flight.

439.6 RESTRICTIONS

439.6.1 CRIMINAL INVESTIGATIONS

When the sUA is deployed to assist in, or gather evidence for, a criminal investigation involving potential 4th Amendment issues, the RPIC will follow all laws, rules and regulations related to seizures. If it is uncertain whether a search warrant is required, the RPIC shall contact the appropriate supervisor.

439.6.2 FLIGHT OPERATORS

For optimal operations, an sUAS will not be deployed with less than two certified remote pilots who are present for the entire flight. One will be designated the RPIC and the second may be a Sensor Operator (SO) or a Visual Observer (VO). Other pilots and trained members of the department can be utilized as VOs, scene security or other essential functions related to the mission.

In exigent circumstances, a RPIC is allowed to operate a sUAS with less than the minimum number of required pilots.

439.7 DIGITAL MULTIMEDIA RECORDINGS

All flight recordings are the property of the Columbia Police Department and will be reviewed, copied or destroyed in accordance with existing city/departamental rules and the Missouri Sunshine Law.

During the deployment of a sUAS, a recording must be conducted as follows:

- A. Prior to takeoff, the camera(s) still image and video recording ability must be verified as functional.
- B. Upon completion of the mission, the Remote Pilot in Command (RPIC) will ensure that the DME of the flight is intact. If the data is corrupt or missing, the mission may be repeated, or the circumstance related to the loss is documented.
- C. Upon completion of the deployment, the DME shall be handled according to the nature of the recording (i.e. evidence or non-evidence/informational).

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439.8 TRAINING

439.8.1 REQUIREMENTS

Those selected to be sUA pilots will be required to complete Department approved training. The minimum requirements will consist of:

- A. Completion of the Drone Pilot Ground School, or equivalent program
- B. Obtaining a Remote Pilot certificate with small unmanned aircraft system rating.
- C. Initial training consists of the following:
 - 1. sUAS Review:
 - a. Pre/Post Flight checklist;
 - b. Proper assembly and storage of all sUAS owned by the department;
 - c. Basic maintenance of all sUAS owned by the department; and
 - d. Use of Logbook.
 - 2. Administrative Matters:
 - a. Policy;
 - b. Standard Operating Procedures;
 - c. All Waiver related training and tests.
 - 3. Flight Operations:
 - a. Perform Take-offs and Landings in a specified area;
 - b. Demonstrate Command and Control of base movements (e.g. up, down, forward, backward, left, right, rotate left, rotate right);
 - c. Perform standard maneuvers (e.g. box drill and figure 8); and
 - d. Demonstrate Command and Control of sUA in emergency circumstances.

439.8.2 CONTINUED TRAINING

Pilots should participate in at least two hours of flight training every 30 days. If a pilot is not available to train during this time frame due to leave or other circumstances, he/she should not act as a RPIC until completing at least one hour of flight training. However, the pilot may act as a SO or VO.

Pilots are responsible for staying current on sUA related material (e.g. law changes and current best practice). Pilots must maintain their Remote Pilot certification to include meeting requirements and retesting prior to the specified expiration.

439.8.3 TRAINING LOCATION

The pilot in charge of training must obtain consent from any and all property owners where the training will be conducted. In the case of city owned property, the pilot in charge of training must notify and obtain permission from the department head responsible for the property prior to any sUA flight.

COLUMBIA POLICE DEPARTMENT

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439.9 MAINTENANCE, REPAIR AND DAMAGE

The maintenance of each sUAS shall be conducted in accordance with manufacturer and/or supplier information. A record of all maintenance done shall be kept for reference by all sUAS pilots.

Most problems with the sUAS can be handled by the pilots that have been trained in the operation of the equipment. Any problem that cannot be corrected shall be documented citing details of the malfunction or problem and submitted to the Equipment Custodian.

When damage to any component of a sUAS occurs (or is discovered), it shall be documented and submitted to the team commander. The information should include the date, location, all crew members (if known), damaged device name, extent of damage and how it occurred (if known).